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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,430	11/29/2000	Toshio Yamada	WATK:204	9774

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/701,430	YAMADA ET AL.	
	Examiner	Art Unit	
	Hien Tran	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/25/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-6 and newly submitted claim 8, in the reply filed on 4/23/04 is acknowledged. The traversal is on the ground(s) that there is no indication in the record that the subject matter of all claims cannot readily be examined at the same time. This is not found persuasive because as pointed out in the previous office action mailed 5/4/04, the apparatus as claimed can be used to practice another and materially different process, such as the process of manufacturing a chemical compound and because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

2. Claim 7 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/23/04.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Close et al (3,959,865).

Close et al discloses an apparatus comprising: a ceramic honeycomb structure 20 before carrying a catalyst; a metal case 10 and a holding material 30, 22, located between the honeycomb structure 20 and the metal case 10 (col. 2, lines 18-31; col. 3, lines 16-17, 47-60; col. 5, lines 36-46; col. 6, lines 12-14, Fig. 1).

With respect to the newly added phrase of “not loaded with a catalyst” and “having two opposing fully open ends”, Close et al discloses that the catalyst may be deposited on the catalyst support before or after being mounted in a casing (col. 5, lines 36-43). Note that the casing 10 having two opposing fully open ends before attaching the end caps 12.

Instant claims 1, 4 structurally read on the apparatus of Close et al.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

8. Claims 2-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Close et al (3,959,865) in view of Machida et al (5,866,079).

The apparatus of Close et al is substantially the same as that of the instant claim, but fails to disclose the specific type of the case, the holding material and the thickness of the cell walls as claimed.

However, Machida et al discloses the conventionality of providing a holding material made of non-intumescent ceramic fiber mat, the fiber having diameter of 2-6 μm (col. 75, line 31 to col. 76, line 10), the metal case has either stuffing structure or tourniquet structure and the thickness of the cell walls is from 0.05 to 0.15 mm which encompasses the instant range (col. 42, lines 5-18).

It would have been obvious to one having ordinary skill in the art to alternately select the non-expanding ceramic fiber mat with the specific ceramic fibers taught by

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Machida et al as the holding material in the apparatus of Close et al, if not inherent therein, to as to effectively protect the honeycomb structure from damage in a practical use condition.

It would have been obvious to one having ordinary skill in the art to alternate select an appropriate structure for the casing, such as the tourniquet structure, as taught by Machida et al in the apparatus of Close et al, on the basis of its suitability for the intended use as a matter of obvious design choice, and since either structure is conventional in the art and no cause for patentability in apparatus claims.

It would have been obvious to one having ordinary skill in the art to substitute the honeycomb structure of Machida et al for the honeycomb structure of Close et al since the thin wall honeycomb structure would increase the open frontal area and decrease pressure loss as taught by Machida et al.

9. Claims 1, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merry (5,028,397) in view of Close et al (3,959,865).

Merry discloses an apparatus comprising: a ceramic honeycomb structure 20; a metal case 11 and a holding material 31 located between the honeycomb structure 20 and the metal case 11, wherein the holding material 31 including ceramic fibers, such as alumina-silica fibers, etc. (col. 2, lines 47-69; col. 6, lines 42-45; Figs. 1-2).

The same teachings with respect to Close et al apply.

It would have been obvious to one having ordinary skill in the art to select an appropriate type of casing, such as the one taught by Close et al in the apparatus of Merry on the basis of its suitability for the intended use as a matter of obvious design choice and since such a modification would have involved a mere change in the shape of a

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component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Since Merry does not require any priority in coating the catalyst and mounting the carrier, it would have been obvious to one having ordinary skill in the art to deposit the catalyst on the catalyst carrier after mounting the carrier in the casing as taught by Close et al, since both are conventional in the art and no cause for patentability here.

10. Claims 2-3, 5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merry (5,028,397) in view of Close et al (3,959,865) as applied to claims 1, 4, 6 above and further in view of Machida et al (5,866,079).

The same teachings with respect to Machida et al apply.

11. Claims 1-4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable by Langer et al (WO 98/35144) in view of Close et al (3,959,865).

Langer et al discloses an apparatus comprising: a ceramic honeycomb structure 20, 42 before carrying a catalyst; a metal case 11, 44 and a holding material 30, 50, located between the honeycomb structure and the metal case; the holding material comprising non-intumescent ceramic fibers; the thickness of the cell wall being 0.1 mm or less (pages 20-23).

The same comments with respect to Close et al apply.

12. Claims 5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable by Langer et al (WO 98/35144) in view of Close et al (3,959,865) as applied to claims 1-4, 6 above and further in view of Machida et al (5,866,079).

The same comments with respect to Machida et al apply.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1, 4, 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 9 of copending Application No. 09/604,660 in view of Close et al (3,959,865).

Claims 1, 9 of copending Application No. 09/604,660 discloses a canning structure comprising: a ceramic honeycomb structure not loaded with a catalyst; a metal case; and a holding material, wherein said ceramic honeycomb structure is held by said holding material inside said metal case and the holding material comprises a non-expanding ceramic fiber mat. The apparatus of claims 1, 9 of copending Application No. 09/604,660 is substantially the same as that of the instant claims, but is silent as to whether the case has two opposing fully open ends.

However, the same comments with respect to Close et al apply.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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15. Claims 2-3, 5, 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 09/604,660 in view of Close et al (3,959,865) as applied to claims 1, 4, 6 above and further in view of Machida et al (5,866,079).

The same comments with respect to Machida et al apply.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

16. Applicant's arguments with respect to claims 1-6, 8 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that the support of Close et al has closed ends and contains catalyst before assembly in the container. Such contention is not persuasive as the support of Close et al does not have closed ends. Close et al further discloses that the catalyst may be deposited on the catalyst support before or after being mounted in the casing (col. 5, lines 36-46).

Applicants argues that Merry and Langer et al disclose a closed end arrangement. However, the introduction of Close et al overcomes such argument. Note that the casing 10 of Close et al before being attached to the end caps 12 has two opposing fully opened ends which is the same as the can of the instant invention before the welding of the cone and flange thereof.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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HT

August 10, 2004

Hien Tran
Primary Examiner
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